

ABSTRACT

The present invention is a method of producing a P(phosphorus)-doped silicon single crystal by Czochralski method, wherein, at least, a growth of the single crystal is performed so that an Al (aluminum) concentration is 2×10^{12} atoms/cc or more. Thereby, there can be provided a method of easily and inexpensively producing a P(phosphorus)-doped silicon single crystal of defect-free region having an excellent capability of electrical characteristics to be high breakdown voltage, which contains neither, for example, V region, OSF region, nor large dislocation cluster (LSEPD, LFPD) region.